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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,082	12/17/2001	Ichiro Fujieda	15168	7772
23389	7590	03/01/2004	EXAMINER	
SCULLY SCOTT MURPHY & PRESSER, PC 400 GARDEN CITY PLAZA GARDEN CITY, NY 11530			MACCHIAROLO, PETER J	
			ART UNIT	PAPER NUMBER
			2875	

DATE MAILED: 03/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/023,082	FUJIEDA ET AL.	
	Examiner	Art Unit	
	Peter J Macchiarolo	2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>1203</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The reply filed on December 5, 2003 consists of changes to the claims, and further, the reply consists of remarks related to the prior rejection of claims in the First Office Action. However, pending claims 1-19 are not allowable as explained below.

Information Disclosure Statement

2. The information submitted by Applicant on December 5, 2003 (i.e. copies of each listed foreign reference) presently convinces the Examiner that the information disclosure statement (IDS) submitted on December 17, 2001 was in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the Examiner.

Claim Objections

3. **Claim 2 is objected to because of the following informalities:**
4. Amended claim 2 contains a punctuation error, "comprising,:"

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1, 4-6, 9, 10, 13, and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claims 1, 4, and 5 recite the limitation, “one of the insulating base material” in the last clause. There is insufficient antecedent basis for this limitation in the claims, and this term is unclear. Is the “one of the insulating base material” the same as the “an insulating base material” recited in the first clause of the claims? According to figure 9D of the instant application, the Examiner is interpreting “one of the insulating base material” to refer to either “the insulating base material” or “the insulating layer”.

7. Claims 6, 9, 10, 13, 14 depend from claims 1, 4, and 5, and are therefore also rejected.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 4, 6, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamazaki et al (USPN 6,433,487; “Yamazaki”).

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9. As broadly as claimed, Yamazaki anticipates claims 1 and 6. Yamazaki discloses in figure 1, a light emitting device having thin film transistor (TFT, 202) on an insulating base material (11); and above the TFT, a luminous section including a luminous material layer (46) and electrode layers (43, 44) supplying current to the luminous material layer; and a plurality of openings (below) in a predetermined pattern on a second insulating base material (42) and at least one material placed above the insulating base material (42) and below the luminous material layer, which is made of organic materials.¹

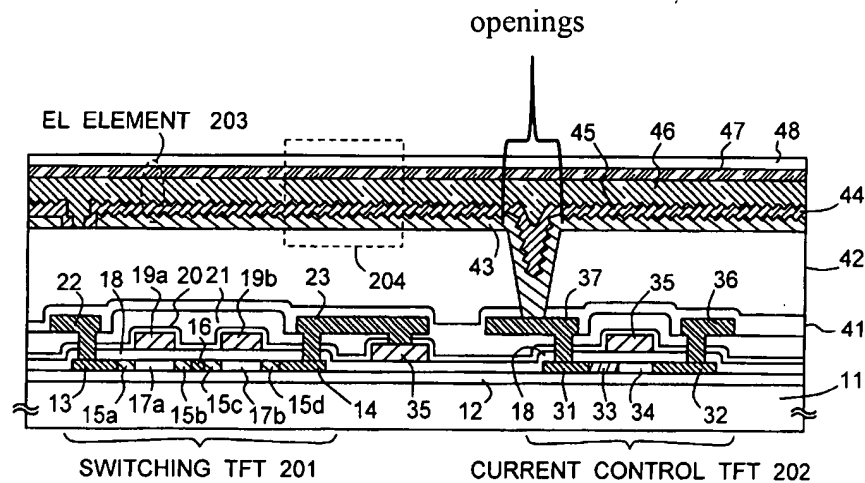


FIG. 1

10. In regards to claims 4 and 9, Yamazaki discloses in figure 1, a light emitting device comprising a TFT (202) on an insulating base material (11); and stacked above the TFT, at least an insulating layer (42); a first electrode layer (47) to supply current to an organic luminous material layer (46), a second electrode layer (43), wherein the first electrode layer being made of

¹ Yamazaki, col. 19, ll. 48-50.

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a transparent material, and the second electrode layer being made of a reflecting material,² a plurality of openings (above) on one of the insulating materials (42) and at least one material (44) placed above the insulating base material and below the luminous material layer, and the first electrode layer on convex sections of the insulating layer.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 2, 3, 5, 7, 8, 10-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki.

12. As broadly as claimed, Yamazaki teaches the limitations of claims 2 and 7. Yamazaki discloses in figure 1, a light emitting device comprising; stacked above an insulating base material (11), a first electrode layer (44) to supply current to an organic luminous material layer (46), and a second electrode layer (47) to supply current to the luminous material layer, a plurality of openings in a predetermined pattern (below) on the first electrode layer, and concavities and convexities formed on the luminous material layer and on the other electrode layer.

13. Yamazaki is silent to the first electrode being transparent.

² Yamazaki, col. 8, ll. 6-15; and col. 7, ll. 17-20.

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14. However, it would have been an obvious matter of design choice to construct the first electrode from a transparent material, since Applicant has not adequately disclosed any testing or analytical data which establishes criticality for this modification, or recites any specific advantage the invention benefits from over the prior art from this modification. It appears that Yamazaki's light emitting device would perform equally well when constructing the first electrode from a transparent material.

15. Furthermore, it would have been obvious to one having ordinary skill in the art that the time the invention was made to use a transparent material for Yamazaki's first electrode, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

16. Further, one would be motivated to construct such a configuration for a variety of reasons, including material availability, and manufacturing processes with sensitive requirements.

17. Therefore, in view of the above discussion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct Yamazaki's light emitting device with the first electrode being transparent.

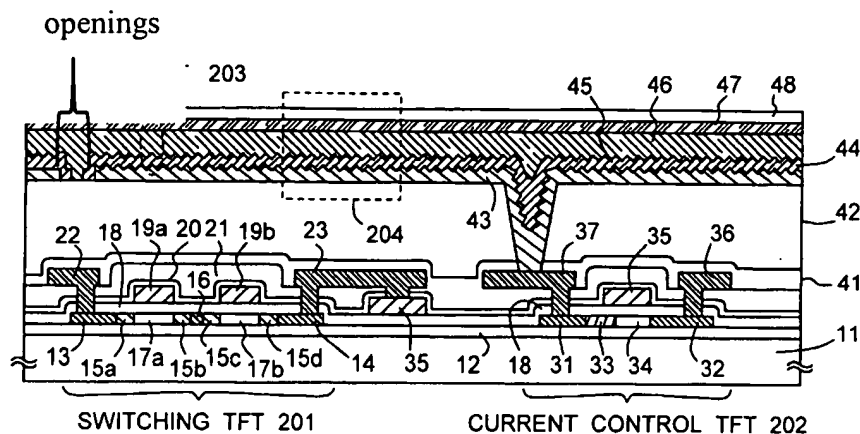


FIG. 1

18. In regards to claims 3 and 8, Yamazaki discloses in figures 1 and 3A, a light emitting device comprising; stacked above an insulating base material, at least a first electrode layer (47) to supply current to a luminous material layer (46), and a second electrode layer (44) to supply current to the luminous material layer, and the first electrode layer is made of a transparent material; the first electrode layer in plan view having a comb shape, and the luminous material layer, which is made of organic material, and the other electrode layer stacked on the electrode layer made of the transparent material are in the shape of concavities and convexities in side view.

19. Yamazaki is silent to the comb shape partly having circular regions.

20. However, it would have been an obvious matter of design choice to construct Yamazaki's comb shape partly having circular regions, since Applicant has not adequately disclosed any testing or analytical data which establishes criticality for these modifications, or clearly recites any specific advantage the invention benefits from over the prior art from this modification. It appears that Yamazaki comb shape would perform equally well when having circular regions.

Further, it is known to one having ordinary skill in the art that circular luminescent regions (pixels) are known in the art, and one would be motivated to construct Yamazaki's comb shape partly with circular regions for a variety of reasons, including material availability, and manufacturing processes with sensitive requirements.

21. Therefore, in view of the above discussion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct Yamazaki's light emitting device with the comb shape partly having circular regions.

22. In regards to claims 5 and 10, Yamazaki discloses in figure 1, a light emitting device comprising a TFT (202) on an insulating base material (11) and stacked above the TFT, at least an insulating layer (42) a first electrode (44) to supply current to an organic luminous material layer (46), a second electrode layer (47); the second electrode layer being made of a transparent material; the first electrode layer being made of a reflecting material, a plurality of openings (above) in a predetermined pattern on at least one of the insulating base material (42) and at least one material (43) placed above the insulating base material and below the luminous material layer, and the second electrode layer is on the luminous material layer.

23. Yamazaki is silent to the second electrode layer being on convex sections of the luminous material layer.

24. However, it would have been obvious to one skilled in the art to construct the convex sections of the luminous layer on the opposite side, thereby forming the second electrode layer on the convex sections of the luminous material layer, since this is a mere rearrangement of parts and a matter of design choice. *In re Japikse*, 86 USPQ 70. Further, one would be motivated to

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construct Yamazaki's light emitting device with such a configuration for a variety of reasons, including material availability, space requirements, preferred light diffusing effects, and manufacturing steps with sensitive procedures.

25. Therefore, in view of the above discussion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct Yamazaki's light emitting device with convex sections of the luminous material layer being on the opposite side.

26. In regards to claims 11-14, Yamazaki discloses all of the recited limitations of claims 2-5 (above).

27. Yamazaki further teaches the luminous layer may be made of inorganic materials.³

28. Yamazaki is silent to a first insulating layer being formed between the luminous material layer and the first electrode, and a second insulating layer is formed between the luminous material layer and the second electrode layer.

29. However, Applicant has admitted in figure 2 that this configuration was known in the art.

30. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the light emitting device of Yamazaki, including a first insulating layer being formed between the luminous material layer and the first electrode, and a second insulating layer being formed between the luminous material layer and the second electrode layer, since this configuration is known in the art. One would be motivated to manufacture this configuration for a variety of reasons, such as to effectively protect the luminous material, material availability, and manufacturing steps with sensitive procedures.

³ Yamazaki, col. 19, ll. 47-50.

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31. In regards to claims 15-19, Yamazaki discloses in figure 1, a light emitting device having a TFT (202) fabricated on an insulating base material (11); at least an insulating layer (42) a first electrode layer (47) to supply current to an organic luminous material layer (46), a second electrode layer (43), wherein the first electrode layer is made of a transparent material, the second electrode layer is made of a reflecting material, a predetermined pattern having a plurality of openings is formed to the insulating base material below the luminous material layer, and the first electrode layer is formed on convex section of the insulating layer owing to the plurality of openings.

32. While Yamazaki is silent to a method of manufacturing such a device, the steps of forming a first and second electrode layer, forming the luminous material layer, forming a second electrode, and a predetermined pattern having a plurality of openings developed to the transparent electrode layer are very broad. Hence, the structure disclosed by Yamazaki meets Applicant's recited method step limitations.

33. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the light emitting device of Yamazaki, with the method of claims 15-19, since the method steps are obvious in light of the resultant structure.

Response to Arguments

34. Applicant's arguments filed December 5, 2003 have been fully considered but they are moot in view of the new grounds for rejection.

Conclusion

35. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

36. U.S. Patent 5,585,695 to Kitai et al is evidence that circular luminescent regions (pixels) are known in the art.

37. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

38. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

39. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J Macchiarolo whose telephone number is (571) 272-2375. The examiner can normally be reached on 7.30 - 4:30, M-F.

40. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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41. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Pjm

[Signature]
Senior Supervisor
Supervisory Personnel Examiner
Technology Center 2800